

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-23 (canceled)

Claim 24 (currently amended): A fiber optic communications module, comprising:
a set of optical fibers supported in an optical ferrule having a set of alignment holes;
a silicon substrate carrier including a set of alignment apertures which are etched into
said silicon substrate using photolithography techniques and is adapted for cooperating with the
an alignment structure of said optical ferrule and aligning said silicon substrate carrier with said
optical ferrule;
a set of guide pins adapted for mating with said set of alignment holes and said set of
alignment apertures; and
an optoelectronic device having a set of photoactive components corresponding to said
set of optical fibers in said optical ferrule which is mounted on so as to be precisely aligned with
said carrier set of alignment apertures so that said set of photoactive components are aligned for
optical communication through said a window section of said silicon substrate carrier with said
set of optical fibers when said set of guide pins are mated with said set of alignment holes and
said set of alignment apertures and said silicon substrate carrier is coupled to said optical ferrule.

Claim 25 (currently amended): The fiber optic communications module according to claim 24, wherein:

said photoactive optical components of said set of photoactive components are arranged in a first linear array, and

said optical fibers of said set of optical fibers are arranged in a second linear array corresponding to said first linear array of photoactive components.

Claim 26 (currently amended): The fiber optic communications module according to claim 24, further including:

an a second alignment structure for said optoelectronic device deposited on said silicon substrate carrier using photolithography techniques.

Claim 27 (currently amended): The fiber optic communications module according to claim 26, wherein:

said second alignment structure comprises at least one metal trace ~~one or more metal traces~~.

Claim 28 (currently amended): The fiber optic communications module according to claim 24 15, wherein:

said set of photoactive components comprise PIN photodiodes.

Claim 29 (currently amended): The fiber optic communications module according to claim 24, further including:

a support block including one or more support passages formed therein to receive the set of guide pins for securely supporting said set of guide pins and said silicon substrate carrier in precisely aligned positions.

Claim 30 (currently amended): The fiber optic communications module according to claim 24, wherein:

a transparent film layer is deposited on the a surface of said silicon substrate carrier using photolithography techniques.

Claim 31 (currently amended): The fiber optic communications module according to claim 30, wherein:

said transparent film layer comprising at least one or more of silicon dioxide, silicon nitride, or polysilicon, and or polyimide.

Claims 32-50 (canceled)